

## II EXECUTIVE OVERVIEW

- This Executive Overview is designed in a presentation format in order to:
  - Help the busy reader quickly review key research findings.
  - Provide a ready-to-go executive presentation, complete with a script, to facilitate group communication.
- Key points of the report are summarized in Exhibits II-1 through II-4. On the left-hand page facing each exhibit is a script explaining the contents of the exhibit.



## A. INFORMATION SYSTEMS MANAGEMENT ISSUES

- The five fundamental issues, outlined in Exhibit II-1, dominate the thinking of information systems management today, all relating directly to the quality, timeliness, and cost of the information services provided by corporate and departmental systems.
- There is no longer any doubt that the quality and timeliness of information made available by a company's systems (internal and/or external) play a critical role in the competitiveness of the entire business; this is true if the business entity is a bank, a manufacturing concern, an insurance company, etc.
- At the same time, there is concern that the huge investments already made in information systems and software should be leveraged to the greatest possible degree, which has led to the recent drive for the integration of existing and new systems into a single information processing capability. This almost invariably leads to networking and in some cases to network integration (data/text/voice and image communications on a single network).
- Further, there is tremendous pressure on corporate IS to contain and where possible reduce costs on the one hand and to find ways of offsetting existing unavoidable costs either through internal chargeback systems or by selling internal capabilities to the outside world.
- This is particularly crucial in view of the continual need to absorb new and future technologies since they are more easily justified if partially paid for by outside demand or revenue generation. As the pace of technological innovation accelerates, the life cycle of individual hardware, software, and network products decreases, requiring almost nonstop evolution of IS capabilities and continual upgrading of in-house staff knowledge and skills.



## **INFORMATION SYSTEMS MANAGEMENT ISSUES**

- **Competitiveness**
  - **Optional Use of Existing Systems and Software**
  - **Systems Integration**
  - **Cost Control/Off-Set**
  - **Future Directions of Technology**
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## B. THE NETWORK WILL BECOME THE SYSTEM

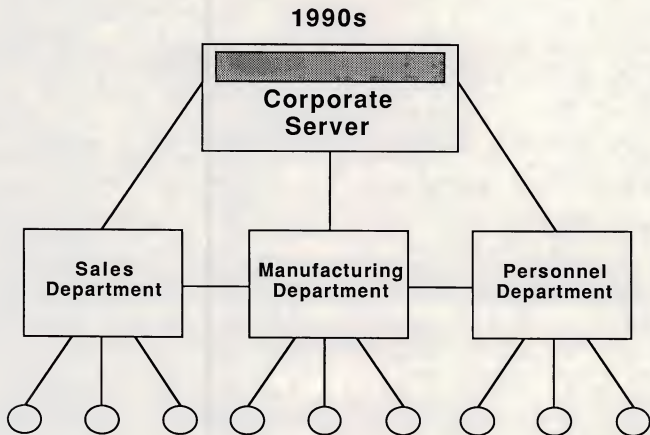
- Network integration will become the dominant systems concern among larger organizations by the end of the decade. The portion of computing power residing at the corporate level will continue to decline as departmental systems emerge as equal nodes in a companywide network.
- The network will thus become the key element of the corporate DP system. The concept of a hierarchy of information (with the corporate data center as the controlling pinnacle) will dissolve to become a "joined hands" environment where all nodes are equal and data residency is transparent to the user. The implications of this new view of information systems are major:
  - A new way of thinking about information systems must evolve. Data becomes "ours" rather than "mine."
  - The "system" becomes the entire linked configuration, not just a single centralized processor or center.
- Departmental systems decisions become too important to be the exclusive province of individual department managers not versed in the issues of companywide information systems. Corporate IS management must be heavily involved, and departmental IS skills must be upgraded.
- Systems design becomes more complex--single processor residency of programs and data will be untenable. Telecommunications skills and planning are vital. A premium will be placed on methods for tracking data and maintaining security.





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**THE NETWORK WILL BECOME THE SYSTEM**

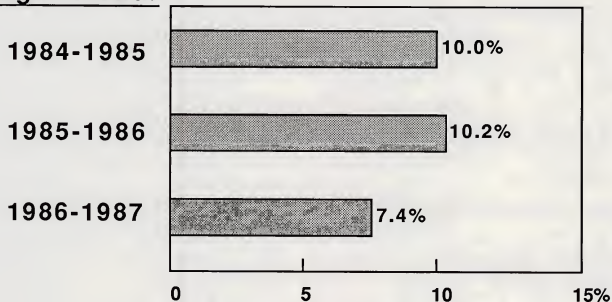




### C. I.S. BUDGET GROWTH HAS SLOWED

- IS budgets will grow at an average annual rate of 7% in 1987, representing a slower growth compared to the past two years. The emphasis is on better utilization and integration of existing information processing capabilities as a way of supporting and enhancing the competitiveness of the company. This affects all areas of business, from sales, distribution, and manufacturing to management.
- The major growth areas in IS expenditures will be in software products and professional services (particularly customized software development). Most areas will show increases higher than the 3% inflation predicted for 1987.
- Industry-specific systems and applications software products will be especially strong in 1987 as managers embrace ways to automate mission-critical systems. Commercial systems integration—the linking of all information handling automation within the company, whether voice, data, text, or image-based—will continue to grow at a fast pace.
- From an industry sector point of view, segments growing as fast or faster than the overall average include transportation (10%) and insurance (7%). These areas of the economy are faced with major expenditures as they adjust to the new demands of a less regulated marketplace.
- Sectors growing less than average are education (3%), banking (3%), wholesale distribution (3%), and utilities (4%). These sectors are services-oriented and have spent heavily in IS in previous years and/or are facing extreme cost pressures which impact the entire firm's ability to spend.



**I.S. BUDGET GROWTH HAS SLOWED****Budget Growth**

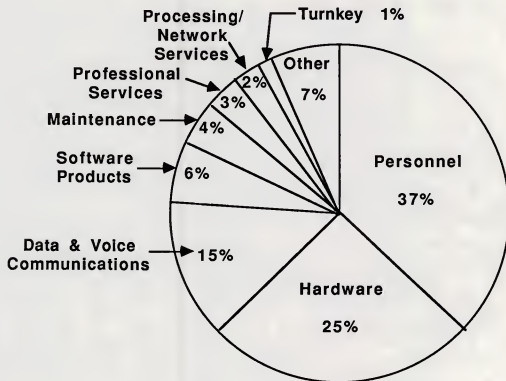


#### D. I.S. BUDGET DISTRIBUTION, 1986

- Personnel spending for IS employees absorbed 37% of the total IS budget in 1986. Labor costs in 1987 will increase slightly faster than inflation due to a shift toward higher skilled personnel caused by the demands of a more complex systems environment.
- Hardware costs comprised a quarter of the 1986 IS outlay, reflecting spending cutbacks in areas such as mainframe systems. INPUT surveys indicate, however, an 8% increase in hardware expenditures in 1987 as firms loosen their purse strings to support competitive-edge and mission-critical systems.
- Voice and data communications expenditures are now the third largest IS expense category with 15% of all costs. As more and more networked systems come on-line, this budget item will continue to grow in importance.
- Outlays on external information services vendors (e.g., software products, professional services, processing services, and turnkey systems) constitute 12% of the entire IS budget. The urgency and complexity of networked systems and systems integration make the special expertise of these suppliers especially appealing. Spending will increase 10% in 1987 for these services.
- Computer/communications technology is now too important to the success of an enterprise to be implemented independently of the firm's top business managers. Steps must be taken to ensure that the processing strategies directly support key business plans.
- Telecommunications systems are costly, complex, and time consuming to develop. It is especially important that the communications network be in place to serve today's needs immediately and that it be rapidly expandable to serve tomorrow's needs without undue delay.





**I.S. BUDGET DISTRIBUTION  
1986****Percent of IS Budget**

